INTERNATIONAL TSUNAMI INFORMATION CENTER
NEWSLETTER
ITIC • P.O. BOX 3887 • HONOLULU, HAWAII 96812 • USA

VOLUME II - Number 3, July 5, 1969

IUGG TSUNAMI MEETING - OCTOBER, 1969

An international symposium on tsunamis and tsunami research, sponsored by the International Union of Geodesy and Geophysics' Committee of Tsunamis and the East-West Center at the University of Hawaii, will take place in Honolulu on October 7 through 10. The following is a tentative program of the meeting.

October 7, 1969

MORNING: Seminar on Seismic Source and Energy Transfer
CONVENER: Dr. S.L. Soloviev
President, Soviet Tsunami Commission
Soviet Geophysical Committee
Molodezhnaya 9
Moscow B-296
USSR

Invited Papers:

1. K. Iida (Japan). Generation of tsunamis, mechanism of earthquakes, and their sources.

2. G.S. Podyapolskiy (USSR). Excitation of tsunamis by earthquakes.

3. F.J. Sabina and C. Lomnitz (Mexico). Tsunami source function due to three-dimensional warping of the ocean floor.

4. W.G. Van Dorn (U.S.A.). A model experiment on the generation of the tsunami of March 28, 1964 in Alaska.

5. A.S. Furumoto and W.M. Adams (U.S.A., Hawaii). Features of tsunamigenic earthquakes. (By title only).

6. T. Hatori (Japan). Dimension and geographic distribution of tsunami sources near Japan.

7. Z. Suzuki (Japan). Tsunami accompanying the Tokachioki earthquake, 1968.

8. G. Pararas-Carayannis (U.S.A., Hawaii). A source mechanism study of the October 17, 1966 earthquake and tsunami in Peru. (By title only).

9. M.N. Kolozenko (USSR). A source mechanism of the Aleutian tsunamigenic earthquake of February 4, 1965.

10. G. Miller and T. Sokolowski (U.S.A., Hawaii). Identification of source region.

11. W.M. Adams and J. Walker (U.S.A., Hawaii). Determination of the depth of focus from one seismic station. (By title only).

12. H. Watanabe (Japan). Statistical studies of tsunami sources and tsunamigenic earthquakes occurring in and near Japan. (By Soloviev letter of 4/8/69).

AFTERNOON: Contributed Papers on Seismology
CHAIRMAN: Dr. C. Lomnitz

T.S. Murty--"Tsunami in the Alberni Inlet due to the Alaska Earthquake of March 28, 1964."

EVENING: Luau Dinner - Paradise Park
After dinner speaker, Dr. Doak Cox - "E Komo Mai!"

OCTOBER 8, 1969

MORNING: Seminar on Tsunami Instrumentation
CONVENER: Dr. M. Vitousek
Division of Tsunami Research
Institute of Geophysics
University of Hawaii
Honolulu, Hawaii 96822

Invited Papers:

1. G. C. Dohler (Canada). The tsunami gages at Victoria and Tofino.

2. _____ (Japan). Recent advances in tsunami instrumentation in Japan.

3. _____ (U.S.A.). The IGPP deep sea instrument capsule.

4. _____ (U.S.A.). Recent advances in tsunami instrumentation at the Hawaii Institute of Geophysics.

5. V.M. Zhak (USSR). Sea-bottom apparatus for tsunami investigation and prediction according to its hydrophysical manifestations.

AFTERNOON: Contributed Papers on Instrumentation
CHAIRMAN: Dr. G.L. Pickard

Dr. Rockne Johnson--"Hydro-acoustic Waves on Tsunamigenic Earthquakes"

OCTOBER 9, 1969

MORNING: Seminar on Tsunami Propagation and Run Up
CONVENER: Dr. Kinjiro Kajiura
Earthquake Research Institute
University of Tokyo
Tokyo, Japan

1. R.D. Braddock: Tsunami propagation over long distances.

2. S.S. Voit and B.I. Sibekin: Some hydrodynamical models of unstationary wave motions of tsunami type.

3. L.V. Cherkasov: Some hydrodynamic problems of tsunami waves.

4. A.V. Nekrasov: Calculation and analysis of tsunami transform on the shelf.

5. M.I. Krivoshey: Experimental investigations of tsunami transform.

AFTERNOON: Contributed Papers on Propagation
CHAIRMAN: Dr. J.W. Brodie

R.O. Reid and C.E. Knowles--"An Inverse Tsunami Problem"

OCTOBER 10, 1969

MORNING: Summary Session
CONVENER: Dr. Gaylord Miller
Joint Tsunami Research Effort
ESSA
Honolulu, Hawaii 96822

S.L. Soloviev, (USSR). Improved statistical data on tsunami recurrence in the Pacific and some features on tsunamigenic earthquakes.

AFTERNOON: Tour of Honolulu Observatory
Cmdr. Robert C. Munson

Meeting of the Tsunami Committee

EVENING: Aloha Dinner

VISITING SCIENTISTS TO ITIC

Two scientists will be visiting ITIC this year to work with ITIC, Joint Tsunami Research Effort, and University of Hawaii scientists on problems related to tsunamis and the Tsunami Warning System. The two distinguished visitors will be Mr. Z. Abuzjarov (USSR) and Dr. H. Watanabe (Japan). Mr. Abuzjarov and Dr. Watanabe will be in Honolulu in time for the forthcoming IUGG tsunami meeting in October. The exchange of scientific and technical personnel among member nations of the IOC is one of the official functions of ITIC and exemplifies the spirit of international cooperation that has made the Tsunami Warning System possible.

SOUTHWEST PACIFIC EXPANSION

The tide and seismic stations at Noumea, New Caledonia have offered to participate in the TWS by providing tide and seismic data to Honolulu Observatory. Additionally, the TWS will provide tsunami watch and warning data to the Territory of New Caledonia and to Papua and New Caledonia. It is anticipated that additional tide and seismic stations in the area will join the System in the near future.

INSPECTION TRIPS

During March, April and May, personnel of the TWS visited many current and prospective participants in the Tsunami Warning System. Mr. Robert Eppley and Lt. Gerald Ward visited Apia; Suva and Nandi, Fiji; Wellington, New Zealand; Noumea; Sydney, Australia; Port Moresby; Manila and Legaspi, Republic of the Philippines; Hong Kong; and Tokyo. Mr. Mark Spaeth visited Panama; Quito, Ecuador; Santiago, Valparaiso, and Antofagasta, Chile; La Plata, Argentina; Lima, La Punta, and Huancayo, Peru; San Jose, Costa Rica; Acajutla and San Salvador, El Salvador; and Mexico City, Salina Cruz, and Mazanillo, Mexico. Mr. Spaeth was accompanied by Mr. Stephen Patchett of the Inter-American Geodetic Survey in South America and Mr. Fred Ponce of the IAGS in Central America.

As a result of these visits improved seismic and tsunami recording instrumentation is being made available to many of the stations in an effort to improve the total effectiveness of the TWS.

COMMUNICATION PLAN FOR TSUNAMI WARNING SYSTEM

The Sixth Edition of the Communication Plan for Tsunami Warning System has been mailed to all participants in the Warning System. The Sixth Edition became effective on June 25, replacing the Fifth Edition which was issued in November 1963. Extensive revisions and expansions were made in the text of the Plan, particularly in the portions describing tsunamis, seismograph and tide stations and their duties, and the dissemination of tsunami watch and warning information. A short section was added giving the history of the TWS. An appendix describes the operation of the Alaskan Regional Warning System. One new seismograph station was added to the System. The Observatorio Astronomico at La Plata, Argentina, has agreed to provide seismic data to Honolulu Observatory.

Any participant of the TWS who has failed to receive a copy of the edition may request one from the Director, Coast and Geodetic Survey, Rockville, Maryland 20852, Attention: C235.

NATIONAL RESEARCH CENTER FOR DISASTER PREVENTION - JAPAN

In September, 1959, the severe typhoon Vera hit the regions around Nagoya in the central part of Japan. About 5,000 people were killed mainly by the storm surges which completely destroyed the dikes protecting reclaimed land which was below mean sea level. As a result of this disaster, the Japanese government established the National Research Center for Disaster Prevention under the Science and Technology Agency in 1963.

As its name implies, the function of the Center is to prevent and minimize the effects of typhoons, earthquakes, tsunamis, heavy rains, floods, heavy snows and other natural disasters by forecasting them and by providing early warning. The Center has its headquarters at No. 1, Ginza-Higashi 6-chome, Chuo-ku, Tokyo, and operates two branches: the Institute of Snow and Ice Studies at Niigata-ken, and the Institute of Coastal Oceanology at Kanagawa-ken. The current director of the National Research Center for Disaster Prevention is Dr. Kazuhiko Terada.

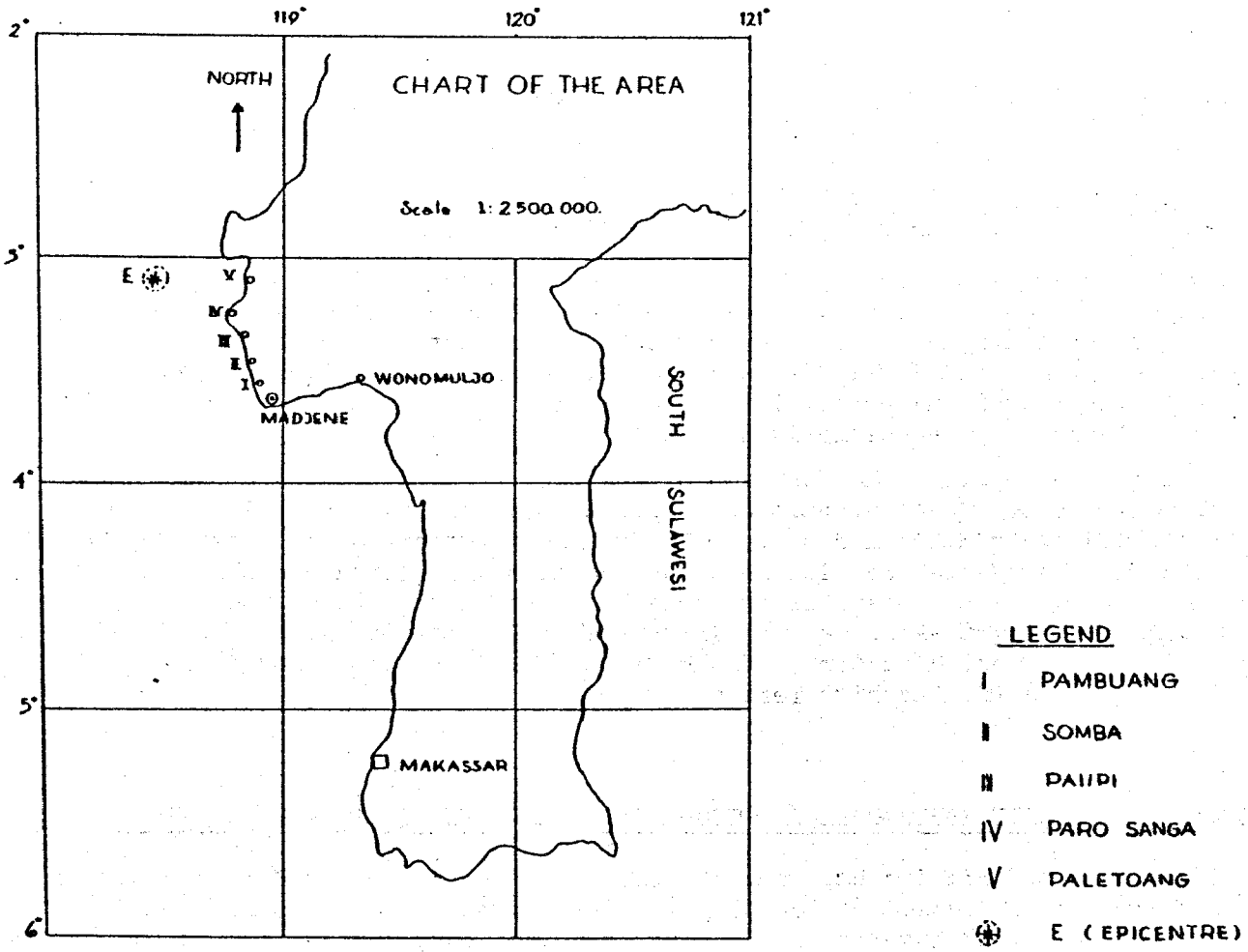
MAKASSAR STRAIT EARTHQUAKE AND TSUNAMI OF FEBRUARY 23, 1969 - INDONESIA

Additional information has reached ITIC in reference to the Makassar Strait earthquake and tsunami of February 23, 1969 reported in the April 5, 1969 issue of the ITIC Newsletter. According to the more recent reports, 64 people were killed, 97 were injured, and 1,287 structures were wrecked as a result of the earthquake. The place worst hit was Madjene along the west coast of Celebes Islands. Damages in the West of Madjene were caused by tsunami and heavy shocks; those in the East of Madjene were by the heavy shocks only.

Subsidence of the ocean floor outside the harbor of Madjene caused extensive damage to the harbor pier. Tsunami waves struck the coastal villages to the north. The waves were about 4 m high at Paletoang and about 1½ m high at Paro Sanga and Paiipi. Wood-framed buildings in the area were swept away by the tsunami and banana plantations were destroyed. People in the area who were interviewed stated that a roaring sound was heard coming from the sea prior to the tsunami arrival.

The tsunami run up data is summarized in the following table and the names of the places can be identified on the attached chart.

	Tsunami Height	Inundation
Pambuang	0.5 m	30 m
Somba	0.5 m	20 m
Paiipi	1.3 m	100 m
Paro Sanga	1.5 m	110 m
Paletoang	4.0 m	100 m



ERUPTIONS OF DIDICAS VOLCANO - PHILIPPINES

Didicas Volcano, in the north of the Philippine Islands off Babuyan Islands and north of Luzon, was a submarine volcano until 1952, when it erupted and formed an island one mile and a half in diameter and about 800 feet above sea level. Eruption of Didicas Volcano began again in March 1969 and its activity is expected to continue for some time. Inhabitants of the settlements of Babuyan Islands and northern Luzon are concerned about the generation of tsunamis. The occurrence of tsunamis in the area however is considered a remote possibility and if they occurred, their effects should be inconsequential.

NORSALV LANDSLIDE - SWEDEN

At 05447 GMT, April 12, 1969, a landslide of sensitive sedimentary formations at the Norsalv River, 7 km north of Lake Vener in Sweden, blocked the river over a length of 750 m and generated waves in the river 4-5 m in height.

CARACAS EARTHQUAKE AND TSUNAMI OF JULY 29, 1967

The earthquake of July 29, 1967 at Caracas, Venezuela generated a small tsunami which was recorded by the tide gauge station at La Guaira. The wave had an amplitude of 7.5 cm and a period of about 11 minutes.

TSUNAMI INVESTIGATIONS - APRIL-JUNE 1969

GMT Date & Time 1969	Epicenter	Magnitude & Depth	Region	Comments
Apr 16, 0123	3.5 S 151.0 E	6.5	New Ireland	No evidence of tsunami
May 14, 1933	51.3 N 179.9 W	7.0	Andreanof Is., Aleutian Is.	Warning was issued by Alaska Regional Warning System. Watch was issued by Honolulu Observatory; no evidence of tsunami

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